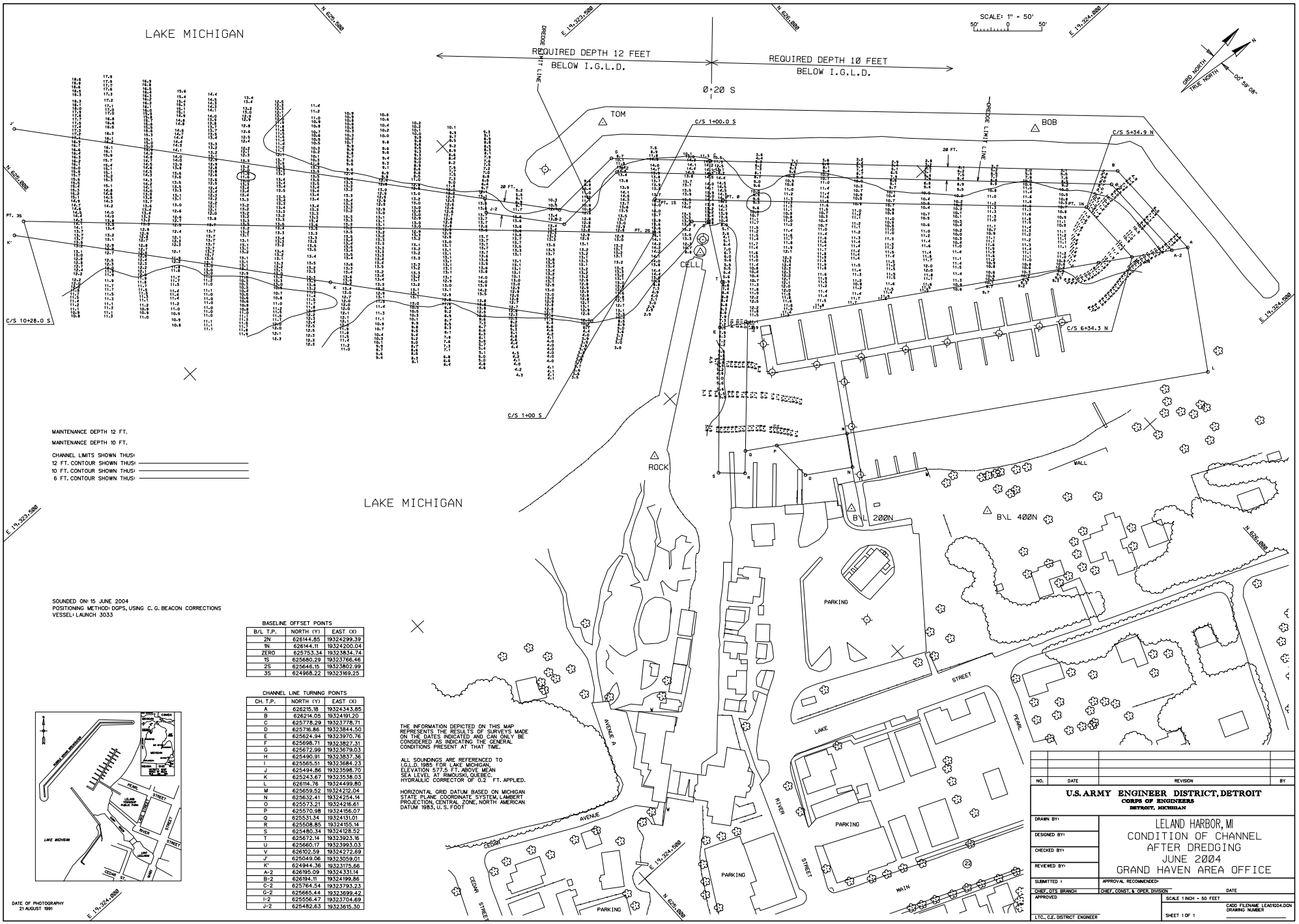


MAINTENANCE DEPTH 12 FT.

MAINTENANCE DEPTH 10 FT.

CHANNEL LIMITS SHOWN THUS:

12 FT. CONTOUR SHOWN THUS:

10 FT. CONTOUR SHOWN THUS:

6 FT. CONTOUR SHOWN THUS:

SOUNDED ON: 15 JUNE 2004
POSITIONING METHOD: DGPS, USING C. G. BEACON CORRECTIONS
VESSEL: LAUNCH 3033

BASELINE OFFSET POINTS

| B/L T.P. | NORTH (Y) | EAST (X) |
|---|---|---|
| 2N | 626144.85 | 19324299.39 |
| 1N | 626144.11 | 19324200.04 |
| ZERO | 625753.34 | 19323834.74 |
| 1S | 625680.29 | 19323766.46 |
| 2S | 625646.15 | 19323802.99 |
| 3S | 624968.22 | 19323169.25 |

CHANNEL LINE TURNING POINTS

| CH. T.P. | NORTH (Y) | EAST (X) |
|---|---|---|
| A | 626215.18 | 19324343.85 |
| B | 626214.05 | 19324191.20 |
| C | 625778.29 | 19323778.71 |
| D | 625716.86 | 19323844.50 |
| E | 625624.94 | 19323970.76 |
| F | 625698.71 | 19323827.31 |
| G | 625672.99 | 19323679.03 |
| H | 625490.91 | 19323837.36 |
| I | 625565.51 | 19323684.23 |
| J | 625494.86 | 19323598.70 |
| K | 625243.67 | 19323538.03 |
| L | 626114.76 | 19324499.80 |
| M | 625659.52 | 19324212.04 |
| N | 625632.41 | 19324254.14 |
| O | 625573.21 | 19324216.61 |
| P | 625570.98 | 19324156.07 |
| Q | 625531.34 | 19324131.01 |
| R | 625508.85 | 19324155.14 |
| S | 625480.34 | 19324128.52 |
| T | 625672.14 | 19323923.16 |
| U | 625660.17 | 19323993.03 |
| V | 626102.59 | 19324272.69 |
| J' | 625049.06 | 19323059.01 |
| K' | 624944.36 | 19323175.66 |
| A-2 | 626695.09 | 19324331.14 |
| B-2 | 626194.11 | 19324199.86 |
| C-2 | 625764.54 | 19323793.23 |
| G-2 | 625665.44 | 19323699.42 |
| I-2 | 625556.47 | 19323704.69 |
| J-2 | 625482.63 | 19323615.30 |

THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATES INDICATED AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS PRESENT AT THAT TIME.

ALL SOUNDINGS ARE REFERENCED TO I.G.L.D. 1985 FOR LAKE MICHIGAN, ELEVATION 577.5 FT. ABOVE MEAN SEA LEVEL AT RIMOUSKI, QUEBEC. HYDRAULIC CORRECTOR OF 0.2 FT. APPLIED.

HORIZONTAL GRID DATUM BASED ON MICHIGAN STATE PLANE COORDINATE SYSTEM, LAMBERT PROJECTION, CENTRAL ZONE, NORTH AMERICAN DATUM 1983, U. S. FOOT

DATE OF PHOTOGRAPHY
21 AUGUST 1991

| NO. | DATE | REVISION | BY |
|---|---|---|---|

**U.S. ARMY ENGINEER DISTRICT, DETROIT**
CORPS OF ENGINEERS
DETROIT, MICHIGAN

LELAND HARBOR, MI
CONDITION OF CHANNEL
AFTER DREDGING
JUNE 2004
GRAND HAVEN AREA OFFICE

DRAWN BY:
DESIGNED BY:
CHECKED BY:
REVIEWED BY:
SUBMITTED: APPROVAL RECOMMENDED:
CHIEF, DTS BRANCH
CHIEF, CONST. & OPER. DIVISION
DATE
APPROVED
LTC., C.E. DISTRICT ENGINEER

SCALE 1 INCH = 50 FEET
SHEET 1 OF 1
CADD FILENAME LEAD1004.DGN
DRAWING NUMBER